

**APPENDIX I.J - Storm Water Discharges Associated with Industrial Activity from Mineral Mining and Processing Facilities**

A. Coverage of This Section.

1. Discharges Covered Under This Section. The requirements listed under this Part shall apply to storm water discharges from the following activities:

**Table I.J.1 – Sector J: Mineral Mining and Processing Facilities**

SIC Code	Activity Represented
1411	Dimension Stone
1422 – 1429	Crushed and Broken Stone, Including Rip Rap
1442	Construction Sand and Gravel
1446	Industrial Sand
1455, 1459	Clay, Ceramic, and Refractory Materials
1474 – 1479	Chemical and Fertilizer Mineral Mining
1481	Nonmetallic Minerals Services, Except Fuels
1499	Miscellaneous Nonmetallic Minerals, Except Fuels

- a. Covered Discharges from Inactive Facilities. All stormwater discharges.
- b. Covered Discharges from Active and Temporarily Inactive Facilities. All stormwater discharges, except for those identified in *Part A.2 of Appendix I.J*. Mine dewatering discharges composed entirely of stormwater or uncontaminated ground water seepage from:
- 1) Construction sand and gravel;
  - 2) Industrial sand; and
  - 3) Crushed stone mining facilities.
- c. Covered Discharges from Facilities Undergoing Reclamation. All stormwater discharges.
2. Sector Specific Limitations on Coverage. In addition to the limitations on coverage listed in *Part I.C*, the following storm water discharges associated with industrial activity are **not** authorized by this permit:
- a. Discharges subject to an existing effluent limitation guideline in *40 CFR Part 434*; and
  - b. Storm water discharges from inactive mining activities occurring on Federal lands where an operator cannot be identified; and
  - c. Storm water discharges from earth-disturbing activities conducted prior to active mining activities. These are considered construction activities and must be covered under the Construction General Permit.

3. Sector Specific Prohibition of Non-Stormwater Discharges. There are no additional prohibited non-stormwater discharges beyond those in *Part I.D.2* of this permit.

B. Sector Specific Control Measures and Effluent Limits.

In addition to the control measures and effluent limits in *Part III*, the permittee shall implement the following to minimize pollutant discharges, as applicable:

1. Stormwater Control Measures. In addition to the control measures identified in *Part III.A*, the following control measures shall be implemented at the facility, where applicable:
  - a. Stormwater Diversions: Divert stormwater away from potential pollutant sources through implementation of control measures, such as the following, where feasible:
    - 1) Interceptor or diversion controls (i.e. dikes, swales, curbs, berms);
    - 2) Pipe slope drains;
    - 3) Subsurface drains;
    - 4) Conveyance systems (i.e. channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or
    - 5) Other equivalent measures.
  - b. Capping. Where capping is necessary to minimize pollutant discharges in stormwater, the source being capped and material used to construct the cap shall be identified.
  - c. Treatment: If treatment of stormwater is necessary to protect water quality, the permittee shall identify and implement the type and location of treatment needed. Stormwater treatments may include the following, where applicable:
    - 1) Chemical or physical treatment systems;
    - 2) Oil/water separators; and
    - 3) Artificial wetlands.
2. Dewatering Practices. In addition to the control measures identified in *Part III*, the permittee shall meet the following requirements for dewatering activities, if conducted, where applicable:
  - a. The discharge is composed entirely of stormwater or uncontaminated ground water seepage from mining facilities;
  - b. No discharging visible floating solids or foam;
  - c. Remove oil, grease and other pollutants from dewatering water via an oil-water separator or suitable filtration device;
  - d. Utilize vegetated upland areas of the site, to the extent feasible, to infiltrate dewatering water before discharge. In no case shall waters of the state be considered part of the treatment area;
  - e. Implement velocity dissipation devices at all points where dewatering water is discharged; and
  - f. Haul backwash water away for disposal or return it to the beginning of the treatment process.

C. Sector Specific Inspection Requirements.

There are no additional inspection requirements beyond those in *Part IV.A* of this permit.

D. Sector Specific Plan Requirements.

1. Description of Activities at the Facility. In addition to the requirements in *Part VII.D.2*, the Plan shall provide a brief description of the mining and associated activities at the site that affect or may affect stormwater runoff intended to be covered by the permit. The description shall include, at a minimum:
  - a. The total acreage within the mine site;
  - b. An estimate of the number of acres of disturbed land;
  - c. An estimate of the total amount of land proposed to be disturbed throughout the life of the mine; and
  - d. A general description of the location of the mining site relative to major transportation routes and communities.
2. Site Map. In addition to the requirements in *Part VII.D.3*, the site map shall also include the location of the following, if applicable:
  - a. Access and haul roads;
  - b. Material handling areas;
  - c. Outdoor chemicals and explosives storage areas;
  - d. Overburden, materials, soils, or waste storage areas;
  - e. Location of mine drainage (where water leaves mine) or other process water;
  - f. Heap leach pads;
  - g. Off-site points of discharge for mine dewatering and process water; and
  - h. Locations of reclaimed areas.
3. Summary of Potential Pollutant Sources. In addition to the requirements in *Part VII.D.4*, the Plan summary of potential pollutant sources inventory shall also include the following, as applicable:
  - a. The types of pollutants (i.e. heavy metals, sediment) likely to be present in significant amounts. The inventory shall include things such as:
    - 1) The mineralogy of the waste rock (i.e. if the mineral is acid forming);
    - 2) Toxicity and quantity of chemicals used, produced, or discharged;
    - 3) The likelihood of contact with stormwater;
    - 4) The vegetation of the site, if any; and
    - 5) Any history of significant leaks or spills of toxic or hazardous pollutants.
  - b. A summary of any existing waste rock or overburden characterization data, including results of any testing for the potential for the generation of acid rock drainage.

E. Monitoring Requirements.

1. Analytical Benchmark Monitoring. The following analytical benchmark monitoring parameters shall apply specifically to sector J facilities. Parameters found in this Part apply to both primary industrial activities and any co-located industrial activities.

**Table I.J.2 – Analytical Benchmark Monitoring Parameters for Sand and Gravel Mining (SIC 1442, 1446)**

Parameter	Benchmark Monitoring Concentration
Nitrate plus Nitrite Nitrogen	0.68 mg/L
Total Suspended Solids <sup>1</sup>	100 mg/L

<sup>1</sup>. Sampling for TSS is not required for storm water discharges that are infiltrating to groundwater.

**Table I.J.3 – Analytical Benchmark Monitoring Parameters for Dimension and Crushed Stone and Nonmetallic Minerals (Except Fuels) (SIC 1411, 1422 – 1429, 1481, 1499)**

Parameter	Benchmark Monitoring Concentration
Total Suspended Solids <sup>1</sup>	100 mg/L

<sup>1</sup>. Sampling for TSS is not required for storm water discharges that are infiltrating to groundwater.

2. Numeric Effluent Limitation Monitoring. Numeric effluent limitation monitoring shall be required for sector J facilities conducting certain industrial activities. The concentration of pollutants in stormwater discharges, independent of comingling, as discussed in *Part V.C.2*, shall not exceed the following effluent limitations at any time during the duration of permit coverage.

**Table I.J.4 – Numeric Effluent Limitation Monitoring Parameters**

Industrial Activity	Parameter	Effluent Limitation
Mine dewatering discharges at crushed stone mining facilities (SIC 1422 - 1429)	pH	6.0 – 9.0 s.u.
Mine dewatering discharges at construction sand and gravel mining facilities (SIC 1442)	pH	6.0 – 9.0 s.u.
Mine dewatering discharges at industrial sand mining facilities (SIC 1446)	Total Suspended Solids	25 mg/L, monthly average 45 mg/L, daily maximum
	pH	6.0 – 9.0 s.u.